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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/379,722	08/24/1999	CAMERON BOLITHO BROWNE	169.1418	1633

5514 7590 06/18/2003

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EXAMINER

HARRISON, CHANTE E

ART UNIT PAPER NUMBER

2672

DATE MAILED: 06/18/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/379,722

Applicant(s)

BROWNE ET AL.

Examiner

Chante Harrison

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29,32-60 and 63-91 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10,14,15,28,29,32-41,45,46,59,60,63-72,76,77,90 and 91 is/are rejected.
- 7) ☒ Claim(s) 11-13, 16-27, 42-44, 47-58, 73-75, 78-89 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 August 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: Amendment C, filed on 2/13/03.
2. Claims 1-29, 32-60, 63-91 are pending in the case. Claims 1, 32 and 63 are independent claims. Claims 1, 4-5, 11-12, 14-15, 18-19, 25-26, 28, 32, 57 and 63 have been amended. Claims 30-31, 61-62 and 92-93 have been cancelled.

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "102" has been used to designate both a step at which the method commences (pp. 8) and endpoint A (pp. 12). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "104" has been used to designate both a step at which the user selects a curve direction (pp. 8) and the tangent associated with endpoint A (pp. 12). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "166". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: "164". A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to because "61" references the angle alpha when the angle delta is shown (Fig. 6A) and "151" references the angle gamma when the angle "alpha" is shown (Fig. 15F). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 14, 28-29, 32-34, 45, 59-60, 63-65, 76, 90, 91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rice et al., U.S. Patent 6,268,871, 7/2001.

As per independent claim 1, Rice discloses selecting a direction (FIG. 4 '30'; col. 4, ll. 33), generating a first vector (FIG. 4 '30a'), generating a second vector (col. 4, ll. 21 et seq.), the curve direction along a first endpoint to a second endpoint (FIG. 4; col. 3, ll. 33 et seq.), and is closest to the selected direction (col. 4, ll. 30 et seq.), the space curve having one of two directions (FIG. 10), either a forward direction from initial to terminating endpoint (FIG. 5, ll. 35-38; FIG. 6) or a reverse direction along the curve from the terminating to the initial endpoint (col. 5, ll. 35-38; FIG. 6) and orienting the curve direction in accordance with the determined direction (col. 4, ll. 29 et seq.). Rice fails to specifically disclose comparing the vectors, however it would have been obvious to one of skill in the art to compare the first and second vectors because Rice teaches verifying the satisfaction of continuity conditions between a blended curve and a

selection curve as the tangent (representative of the angle at the point) and the direction are selected and/or varied (col. 4, ll. 52-64; col. 6, ll. 40-50).

As per dependent claims 2, 33 and 64, Rice discloses determining endpoints (col. 3, ll. 25 et seq.) and generating a second vector connecting the endpoints (col. 4, ll. 21 et seq.).

As per dependent claims 3, 34 and 65, Rice discloses determining endpoints (col. 3, ll. 25 et seq.) and generating two-second vectors connecting the endpoints (FIG. 4; col. 4) and having opposite directions (FIG. 4 '12a' & '12c').

As per dependent claims 14, 45, 76, Rice discloses determining endpoints (col. 3, ll. 25 et seq.) and generating second vector tangents for each endpoint (col. 4, ll. 26-34).

As per dependent claims 28, 59 and 90, Rice discloses providing further space curves (col. 5, ll. 40-46), and performing the step of generating a second vector (col. 4, ll. 21-37), comparing first and second vectors (col. 4, ll. 52-64; col. 6, ll. 40-50) and orientating the direction of each curve (col. 12, ll. 4-10).

As per dependent claims 29, 60 and 91, Rice discloses a plurality of techniques for generating the second vectors (col. 4, ll. 1-5, 26-34) and selecting one of the techniques in response to user input (Fig. 7).

As per independent claim 32, Rice discloses an apparatus (FIG. 14) for performing the method of claim 1. Therefore the rejection as applied to claim 1 is included herein.

As per independent claim 63, Rice discloses a program (FIG. 14 '214') for performing the method of claim 1. Therefore the rejection as applied to claim 1 is included herein.

Claims 4-10, 15, 35-41, 46, 66-72 and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rice as applied to claims 1, 32 and 63 and further in view of David Brinegar et al., U.S. Patent 5,940,082, 8/1999.

As per dependent claims 4, 5, 15, 35, 36, 46, 66-67 and 77, Rice determining a first and second angle (i.e. tangent) between one of the second and first vectors (col. 5, ll. 21-31), comparing the first angle with the second/threshold (col. 4, ll. 52-64; col. 12, ll. 18-35). Brinegar discloses if the first angle is less than the second angle/threshold value then the direction of the curve is in a first direction and if the first angle is greater than the second angle or threshold value then the direction of the curve is in a second direction opposite the first direction (col. 9-10, ll. 58-3), which Rice fails to disclose. It would have been obvious to one of skill in the art to include Brinegar's disclosure of a curve having a first direction when the angle of a first vector is less than a second angle/threshold or having an opposite direction when a vector angle is greater than that of a second vector angle/threshold because Rice teaches displaying curves by checking the curve continuity defined by parameters for curve direction and tangents (col. 6, ll. 40-50; col. 12, ll. 18-35).

As per dependent claims 6, 37 and 68, Rice in view of Brinegar discloses the first threshold value is 90 degrees (Fig. 15; col. 11, ll. 55-65).

As per dependent claims 7, 8, 38, 39, 69, 70, Rice in view of Brinegar fails to specifically disclose generating a vector orthogonal to the first vector. It would have been obvious to incorporate the preceding feature in the disclosure of Rice because Rice teaches generating a vector having a direction specified by the user, where the direction can be set to any selected axis (col. 11, ll. 55-65).

As per dependent claims 9, 40, 71, Rice in view of Brinegar discloses the orthogonal vector is generated in a predetermined manner (col. 4, ll. 25-28, 33; col. 11, ll. 48-51; col. 12, ll. 4-10).

As per dependent claims 10, 41, 72, Rice in view of Brinegar discloses the orthogonal vector is generated in accordance with a user-selected direction (col. 11, ll. 48-51; col. 12, ll. 4-10).

Claims 11-13, 16-27, 42-44, 47-58, 73-75, 78-89 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

1. Applicant's arguments filed 4/29/02 have been fully considered but they are not persuasive.

Applicant argues (pp. 30-31) Rice fails to disclose generating a second vector having a direction derived from a corresponding characteristic of the space curve and a blended curve having either a forward or a reverse direction.

The blended curve of Rice, which is disclosed as intersecting with curves, surfaces, etc. (col. 2, ll. 35-40) directly corresponds to the claimed space curve defined as having a start and end point and representative of a character stroke (specification pg. 1 & 3). Additionally, Rice discloses generating a vector representing a desired curve direction (col. 3, ll. 35-40; col. 4, ll. 33) and generating a second vector having a direction representative of a curve characteristic (col. 4, ll. 21-25, 33; col. 1, ll. 55-65). Rice also discloses user specification of curve conditions, which must be met to generate a curve that is oriented with existing geometry (col. 4, ll. 12-25), where curve conditions include identifying points having direction (col. 4, ll. 26-37).

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Chante Harrison** whose telephone number is **(703) 305-3937**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Razavi**, can be reached at **(703) 305-4713**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

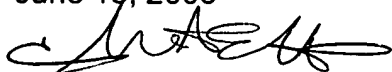
(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Ch

June 13, 2003

A handwritten signature in black ink, appearing to be 'Chante Harrison', is written over the date.